REMARKS

Reconsideration of this application as amended is respectfully requested.

Claims 7-9 and 13 are objected to because of informalities. Claims 1-27 stand rejected under 35 U.S.C. §112, second paragraph. Claims 1-4, 7, 8, 14, 15, 21, and 22 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,142,528 of Kobayashi et al (Kobayashi). Claims 5 and 6 stand rejected under 35 U.S.C. §103(a) as being obvious under Kobayashi. Claims 9-13, 16–20, and 23-27 stand rejected under 35 U.S.C. §103(a) as being obvious under Kobayashi in view of U.S. Patent No. 5,365,590 of Brame (Brame).

Claims 7- 9 and 13 have been amended to correct the informalities cited by the examiner. Claims 1-3, 7-10, 13-17, 20-22, and 27 have been amended to better comply with 35 U.S.C. §112. It is respectfully submitted that the amended claims 7-9 and 13 do not add new matter.

The Examiner has rejected claims 1, 7, and 14 under 35 U.S.C. §112, stating that it is unclear what is meant by "connection components." The claims have been amended to more clearly point out the meaning of connection components.

The Examiner has further rejected claims 2 and 21 under 35 U.S.C. §112, stating that it is unclear what is meant by "software images." The claims have been amended to more clearly point out the meaning of software images.

The Examiner has rejected claims 1-4, 7, 8, 14, 15, 21, and 22 under 35 U.S.C. §102 as being unpatentable over Kobayashi. The Examiner has stated that

> Kobayashi et al teaches in fig. 3, host computer detecting a setup request to establish network connection from the terminal (detecting a request); wherein the host determines the protocol (traffic type) and executes the layer 2 communication control program (see fig. 2 and see col 5, lines 15-35).

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Applicants respectfully submit, however that claims 1-4, 7, 8, 14, 15, 21, and 22 are not anticipated under 35 U.S.C. §102 by Kobayashi. Claims 1-4, 7, 8, 14, 15, 21, and 22 include the limitations

> determining network traffic type used by the network connection; and
>
> executing code to selectively enable on-board components to process data over the network connection, according to the network traffic type.

(Claim 1).

> a processor coupled to the plurality of network on-board components, the processor executing a predetermined one of a plurality of software modules corresponding to the type of network traffic arriving on the network connection and to selectively enable at least one of the plurality of network on-board components according to the predetermined one of a plurality of software modules.

(Claim 7).

> a processor coupled to the plurality of network on-board components and configured to execute a predetermined one of a plurality of software modules corresponding to the type of network traffic arriving on the network connection and to selectively enable at least one of the plurality of network on-board components according to the predetermined one of a plurality of software modules.

(Claim 14).

> means for executing code for a predetermined one of a plurality of software modules corresponding to the type of network traffic arriving on the network connection and to selectively enable at least one of the plurality of means for processing data according to the predetermined one of a plurality of software modules, the means for executing coupled to the plurality of means for processing.

(Claim 21).

In contrast, Kobayashi does not disclose selectively enabling at least one of the plurality of means for processing data according to the predetermined one of a plurality of software images. Kobayashi discloses that

> The present configuration may be applicable to not only the communication which utilizes the ISDN network but also the communication which utilizes a plurality of B channels. In the latter case, as many coupling points as the product of the number of sets of the protocols which are operable in the uppermost layer of the data link layers and the number of B channels are provided between the communication control program of the lowermost layer which operates in the system space and the communication control program of the uppermost layer of the data link layers so that it can be dynamically switched.
>
> In accordance with the present invention, since the communication protocol may be dynamically selected prior to the start of communication, communication with many communication media is simply attained. Particularly, the communication protocol when the B channel is used can be dynamically selected by a command from the communication application program so that the B channel can be efficiently utilized.

(Kobayashi Col. 5, lines 15-35).

In other words, Kobayashi allows for dynamic switching between a plurality of B channels, with no regard to the traffic type. In contrast, claim 1 refers to executing code to selectively enable on-board components to process data over the network connection, according to the network traffic type. Given that claims 2-6 depend from claim 1, claims 8-13 depend from claim 7, claims 15-20 depend from claim 14, and claims 22-27 depend from claim 21, applicants submit that claims 2-6, 8-13, 15-20, and 22-27 are not anticipated under 35 U.S.C. §102 by the reference cited by the Examiner, for at least these reasons.

The Examiner has rejected claims 5 and 6 under 35 U.S.C. §103 as being unpatentable over Kobayashi. The Examiner has stated that

> Kobayashi et al teaches the host selecting the layer 2 communication control program from the local memory 104. Kobayashi et al fails to

> explicitly teach the layer 2 protocol further includes ATM and frame relay protocol. ISDN communication, frame relay communication or ATM communication, the originating terminal declares the traffic characteristics which are stationarily set in advance to the network and the terminating terminal by a SET UP message, and receives the notification on the reception of the SET UP message through a CONN message. Hence, ISDN, Frame relay or ATM are analogous art. Since, Frame relay and ATM supports greater flexibility in the QoS and greater speeds then ISDN. It would have been obvious to one skilled in the art to have incorporated the Frame relay and ATM protocol into the layer 2 communication control program of Kobayashi

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Claims 5 and 6 include all limitations disclosed in independent claim 1, including executing code to selectively enable on-board components to process data over the network connection, according to the network traffic type. The applicants would submit that Kobayashi does not explicitly or implicitly disclose executing code to selectively enable on-board components to process data over the network connection, according to the network traffic type. It is further submitted associating this limitation with Kobayashi is impermissible hindsight based on applicant's own disclosure. Therefore, claims 5 and 6 are not obvious under 35 U.S.C. §103 by the reference cited by the Examiner, for at least these reasons.

Claims 9-13, 16-20, and 23-27 stand rejected under 35 U.S.C. §103(a) as being obvious under Kobayashi in view of Brame. The Examiner has stated that

> Claims 9, 13, 16, 20, 23, 27, refer to Claim 1, Kobayashi et al teaches in fig 1, the ISDN network 103. Kobayashi et al fails to explicitly teach the TDM switch. However, Brame et al teaches the TDM switch coupled to the CTIS. ISDN network 103 and CTIS are analogous art. TDM switch are well known in the art to support networking. The networking function of the TDM switch can be combined with the host function of Kobayashi et al. The TDM switch combined with Kobayashi et al can the support network switching. Hence, it would have been obvious to one skilled in the art to have incorporated the protocol selection function of Kobayashi et al into the TDM switch of Brame to provide multi-protocol platform.

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Claims 9-13, 16-20, and 23-27 include all limitations disclosed in independent claims 7, 14, and 21 including a processor coupled to the plurality of network on-board components, the processor executing a predetermined one of a plurality of software images corresponding to the type of network traffic arriving on the network connection and to selectively enable at least one of the plurality of network on-board components according to the predetermined one of a plurality of software images. It is submitted Brame does not teach or suggest a combination with Kobayashi, nor does Kobayashi teach or suggest a combination with Brame. It is further submitted that combining Brame with Kobayashi is impermissible hindsight based on applicant's own disclosure. Even if Brame and Kobayashi were combined, the combination would still lack the element of a processor coupled to the plurality of network on-board components, the processor executing a predetermined one of a plurality of software images corresponding to the type of network traffic arriving on the network connection and to selectively enable at least one of the plurality of network on-board components according to the predetermined one of a plurality of software images. Therefore, claims 9-13, 16-20, and 23-27 are not obvious under 35 U.S.C. §103 by the references cited by the Examiner, for at least these reasons.

Applicants therefore submit that the rejections and objections have been overcome. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call Stephen Neal at (408) 720-8300.

If any fee is due not covered by any check submitted please charge Deposit Account No. 02-2666.

Respectfully submitted,

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MARKED-UP VERSION TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend claims 1-3, 7-10, 13-17, 20-22, and 27 as follows:

1. (Amended) A method for a single hardware platform to support multiple network traffic types, comprising:

detecting a request to establish a network connection to the hardware platform;

determining network traffic type used by the network connection; and

executing code to selectively enable [connection] on-board components to process data over the network connection, according to the network traffic type.

2. (Amended) The method of claim 1 further comprising invoking an appropriate one of a plurality of software [images] modules corresponding to the network traffic type.

3. (Amended) The method of claim 2 further comprising copying the appropriate one of a plurality of software [images] modules into a local memory on the single platform.

7. (Amended) An apparatus for a multi-service network architecture for processing network traffic arriving on a network connection comprising:

a plurality of network [connection] on-board components residing on a single platform; and

a processor coupled to the plurality of network [connection] on-board components, the processor executing a predetermined one of a plurality of software [images] modules corresponding to the type of network traffic arriving on the network connection and to selectively enable at least one of the plurality of network [connection] on-board components according to the predetermined one of a plurality of software [images] modules.

8. (Amended) The apparatus of claim 7 further comprising a local memory coupled to the processor, the local memory holding the predetermined one of a plurality of software [images] modules.

9. (Amended) The apparatus of claim 8 wherein at least one of the plurality of network on-board components is a Time Division Multiplexed (TDM) switch to provide full-duplex serial paths.

10. (Amended) The apparatus of claim 9 wherein the plurality of network on-board components comprises a plurality of T1/E1 framers coupled to a first set of plurality of ports on the TDM switch.

13. (Amended) The apparatus of claim 11 further comprising a connection management software coupled to the local memory, the connection management software identifying the type of connection set-up being requested and to invoke a corresponding one of a plurality of software [images] modules which programs the TDM switch to correctly manage desired connectivity.

14. (Amended) A system for a multi-service network architecture for processing network traffic arriving on a network connection comprising:

a plurality of network [connection] on-board components residing on a single platform; and

a processor coupled to the plurality of network on-board components and configured to execute a predetermined one of a plurality of software [images] modules corresponding to the type of network traffic arriving on the network connection and to selectively enable at least one of the plurality of network on-board components according to the predetermined one of a plurality of software [images] modules.

15. (Amended) The system of claim 14 further comprising a local memory coupled to the processor and configured to hold the predetermined one of a plurality of software [images] modules.

16. (Amended) The system of claim 15 wherein at least one the plurality of network [connection] on-board components is a Time Division Multiplexed (TDM) switch configured to provide full-duplex serial paths.

17. (Amended) The system of claim 16 wherein the plurality of network [connection] on-board components comprises a plurality of T1/E1 framers coupled a first set of plurality of ports on the TDM switch.

20. (Amended) The system of claim 19 further comprising a connection management software coupled to the local memory and configured to identify the type of connection set-up being requested and to invoke a corresponding one of a plurality of software [images] modules which programs the TDM switch to correctly manage desired connectivity.

21. (Amended) An apparatus for a multi-service network architecture for processing network traffic arriving on a network connection comprising:

a plurality of means for processing data for a predetermined network traffic type residing on a single platform; and

means for executing code for a predetermined one of a plurality of software [images] modules corresponding to the type of network traffic arriving on the network connection and to selectively enable at least one of the plurality of means for processing data according to the predetermined one of a plurality of software [images] modules, the means for executing coupled to the plurality of means for processing.

22. (Amended) The apparatus of claim 20 further comprising means for storing the predetermined one of a plurality of software [images] modules, the means for storing coupled to the means for executing.

27. (Amended) The apparatus of claim 26 further comprising means for identifying the type of connection set-up being requested at the network connection and to invoke a corresponding one of a plurality of software [images] modules which programs the TDM switch to correctly manage desired connectivity, the means for identifying coupled to the means for storing.